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HOW TO MAXIMISE STUDENT PARTICIPATION ON LONG EDUCATIONAL TOURS

by

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This paper is based partly on a presentation made by the writer at the Geography Teachers' Workshop held at Chaplin High School, (Gweru) on the 3rd of May 1990. The topic was a demonstration of the **Case Study Approach**.

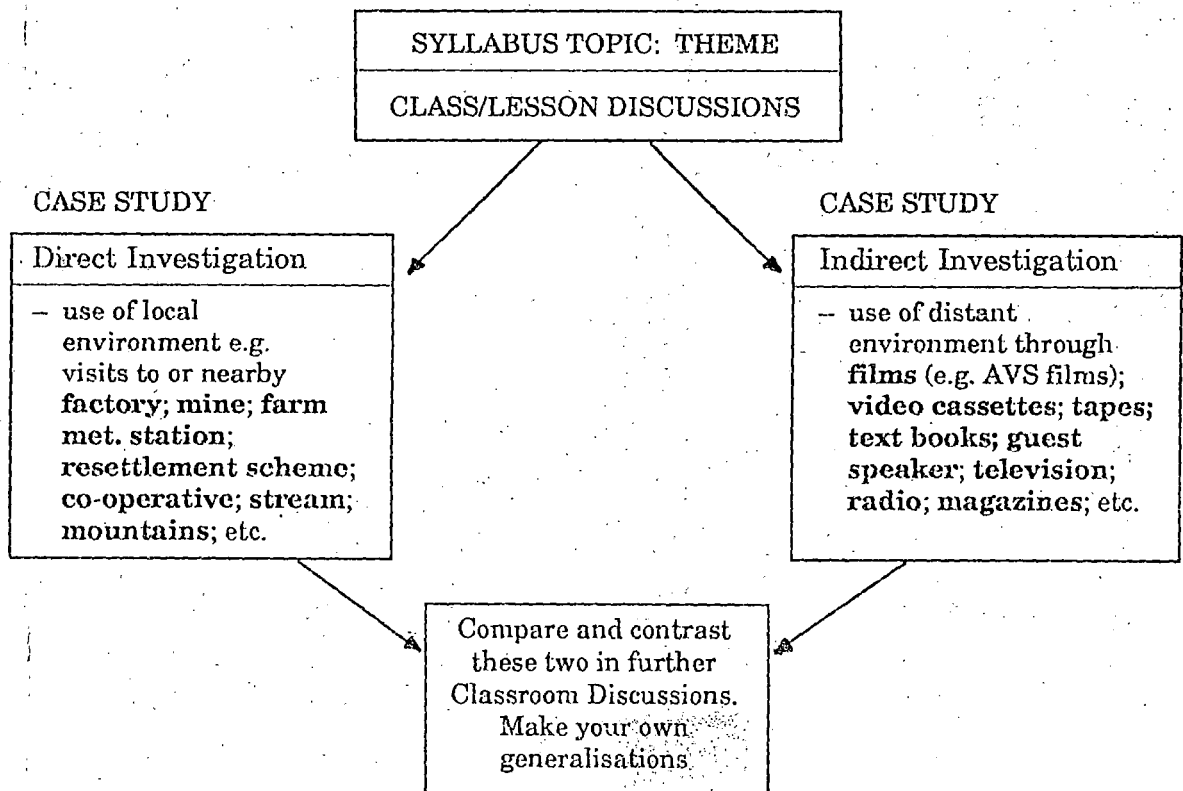
Secondly, it is based on a long educational tour which was carried out by 'O' level students of Shungu Boys' High on 7th – 10th August in 1989 i.e. from Kwe Kwe to Kariba via Harare.

A. THE CASE STUDY APPROACH – A DEMONSTRATION

The term 'Case Study', is simply taken to mean studying certain themes by selecting **examples** or **samples** which represent the very wide theme. Rushby (1970) p.99 simply uses the term 'Sample Studies' to mean 'Case Studies'. Thus a case is a specific example. This paper highlights the importance of this case study approach in our modern day teaching methods as we try to maximise the pupils' learning by exposing real life situations, as well as making the teaching as effective as possible.

Examples of things or processes happening around us may be acquired in various ways, some of which are direct whilst some are indirect, depending on the permissiveness of the environment and available resources in the location of the school. Therefore a case study approach may be summarised by a simple diagram as follows:

Figure 1: Case Study Approach



This approach:

- presents pupils with clear mental pictures of things happening around them, thus effecting changes in their attitudes and feelings about their environment;
- helps to make learning more meaningful;
- helps to make pupils realise the similarities and differences of world activities i.e. how different people interact with their environments in different parts of the world;
- helps to develop more practically inquisitive minds; and
- helps to remove the monotony and boredom of classroom lessons.

B. THE CASE OF A LONG EDUCATIONAL TOUR

Nowadays, long field trips are becoming more and more of a common feature in our schools and both parents and schools are often willing to finance these. Some trips even go beyond the borders of the country and require much more preparation than the local ones.

The author is concerned about:

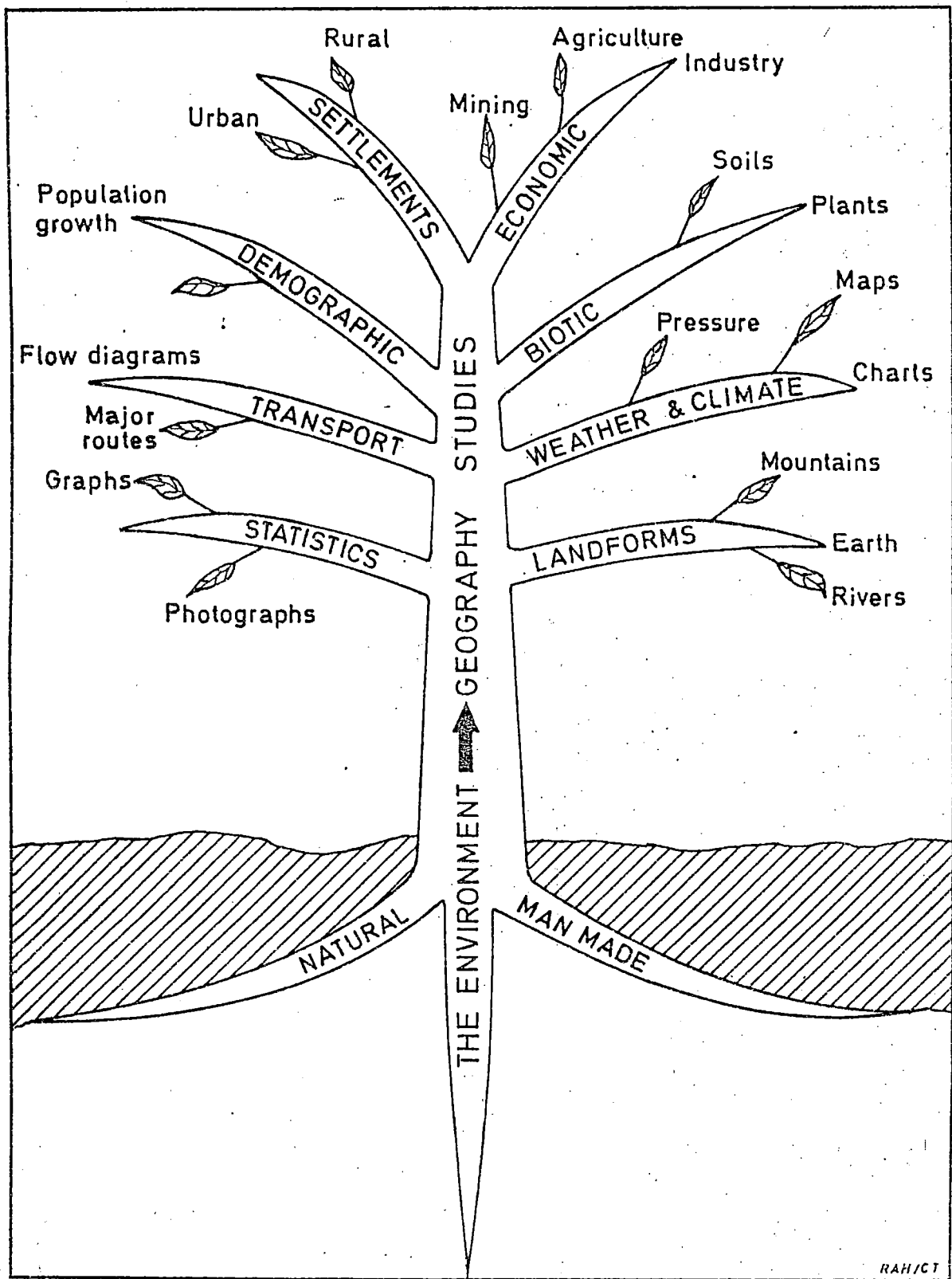
- how such trips are organised by teachers;
- how much enjoyment is experienced by students;
- how much learning and guidance takes place during such trips;
- how many of the Geography Tree (Figure 2) branches are covered on such a trip; and
- how these trips can be made worth what they cost.

It is with all these in mind that the author had decided to provide a summary of one such tour which was undertaken by eighty 'O' level student in August 1989, travelling from Kwe Kwe to Kariba, in the company of seven staff members including the author.

The Aims and Objectives of the Tour:

- Firstly, it is a tradition for the school to offer a long trip to form four students who are about to leave school.
- Secondly, there was a desire to enable students to see a wider area of Zimbabwe before they leave the school (an idea borrowed from B.R. Mtisi 1989).
- From the writer's point of view the objectives were:
 - to maximise pupil participation on a long tour;
 - to make the trip geographically viable;
 - to bridge the empty gap and the boredom often created by such long trips between the place of departure and the destination;
 - to help students to be able to develop clear mental maps and pictures of areas they have visited; and
 - to make sure that each and every branch of the Geography Tree (Figure 2) is catered for at the end of each trip.

Figure 2: The Geography Tree



Adapted from C.D.U. Materials (1985)

Organisation:

Although not directly involved in the preparation of the tour the author made this a personal project/venture but asked a few student volunteers to help. However, in a short time, the whole bus (including some staff members) started getting involved as some of the activities were in the form of games. This presented a sudden challenge to the author as to how to organise the students; how to keep them interested throughout the 600 km long journey, which was to take four days; how not to interfere with other teachers' projects if any; how not to interfere with the driver; etc. These problems were not difficult to solve as the passengers in the bus had started off with a lot of energy and neither students nor teachers had thought of exactly what to do or how to occupy themselves whilst in the bus, without disturbing the driver with too many stops. This is where the author's advantage of having participated in field trips with the Geographical Association of Zimbabwe must have helped.

Equipment Used:

Everything which was recorded *en route* was done by observation on the right and left-hand sides of the bus. Basic equipment used was paper and pen. However, the author had also brought the following: graph paper; magnetic compasses; camera; small bag for samples; pair of binoculars; ruler; plain paper; relief map of Zimbabwe; and topo-cadastral maps of some of the stopping places e.g. Chinhoyi.

Activities carried out: (*en route* and after)

Half the people were observing from either side of the bus and small groups of three or four were making observations and comparisons and drawing conclusions e.g.:

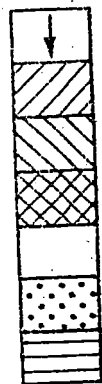
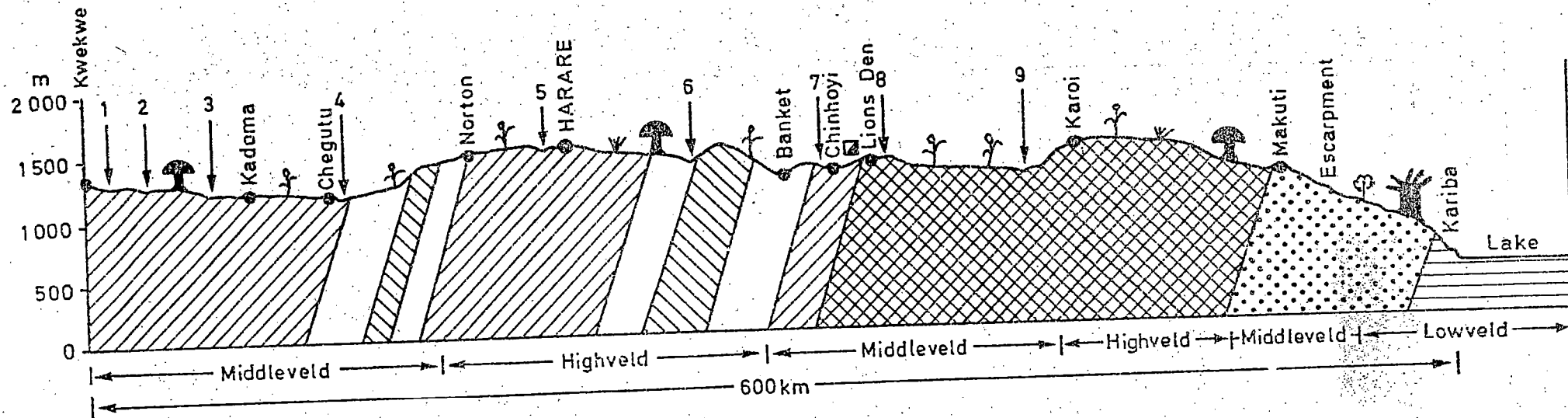
- time keeping and making a narrative report (this had already been organised by the English Department);
- keeping direction of movement (use of magnetic compass);
- observing types of soils seen (light, red/brown or dark);
- observing human activities like cultivation (types of crops), mining (mineral, if known), ranching (types of cattle seen);
- naming trees in Shona/Ndebele (botanical names to be researched later);
- recording major named streams which are crossed (direction to be checked later);
- observing the gradient i.e. whether going up or down and for what distance (looking at the small kilometre-pegs);
- announcing the distance remaining before the next stopping-place e.g. large town (looking at the large kilometre-pegs);
- recording on graph paper (using a chosen horizontal scale and a vertical scale) the gradient. In this case a horizontal scale of 1 cm to 25 km and a vertical interval of 1 cm to 250 m were used. The horizontal scale however was enlarged to 1 cm to 12 km later in the final drawing, in order to give it a smoother and more realistic shape;
- keeping a record of whether we were in highveld, middleveld or lowveld (using the relief map of Zimbabwe);
- looking for wild animals and naming those we came across in Shona/Ndebele or English;

- observing the landscape (i.e. was it flat, undulating, hilly, mountainous, and were there conical hills, gaps/passes, etc);
- observing types of roads (wide tarred A5, double or multi-laned, narrow tarred, strip, dirt, etc);
- identifying types of cars along main roads;
- counting on-coming traffic on the main road (whether light or heavy);
- counting the overtaking traffic (whether light or heavy);
- counting overtaken traffic (whether light or heavy); checking speed of own driver (whether safe or unsafe, but quietly!);
- listening to type of languages which we came across;
- observing any interesting weather changes (e.g. temperatures/cloudcover); and
- taking photographs at appropriate situations (this was done by all those who had cameras).

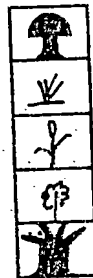
Table 1: How Information was Recorded

Station	Stopping Places	Main Observations		
		Site/Location	Veg/Relief/Weather	Others
DAY ONE 6:00 am Depart from Kwekwe	None	Middleveld 1350 m.	Cold with 5/8 cloud cover.	Few people trickling into town.
↓ 70 km	None	Lower Middleveld.	Msasa/Mnondo. Cultivation of cotton.	See transect.
KADOMA 6:45 am	None	See transect. (Figure 3)	See transect.	Many people going to work.
↓ 33 km	Short stop for relief, midway.	See transect.	See transect.	See transect.
CHEGUTU 7:15 am	None	See transect.	See transect.	See transect.
↓ 60 km	None	See transect.	See transect.	See transect.
NORTON 8:15am	None	See transect.	See transect.	See transect.
↓ 45 km	None	See transect.	Sudden rise of land. McIlwaine dam in a gorge in a range of hills.	See transect.

Figure 3: Landuse Transect: Kwekwe to Kariba



Rivers
Gold Belt
Great Dyke
Quartzite
Granite
Gneiss
Sedimentary



Msasa /Mnhondo Tree Savanna
Open Grassland
Cultivation
Thorn or Scrub Vegetation
Baobab

■ Mining

1 Sebakwe River
2 Munyati River
3 Muzwezwe River
4 Mupfure River
5 Manyame River
6 Gwebi River
7 Manyame River

8 Angwa River
9 Mukwe River

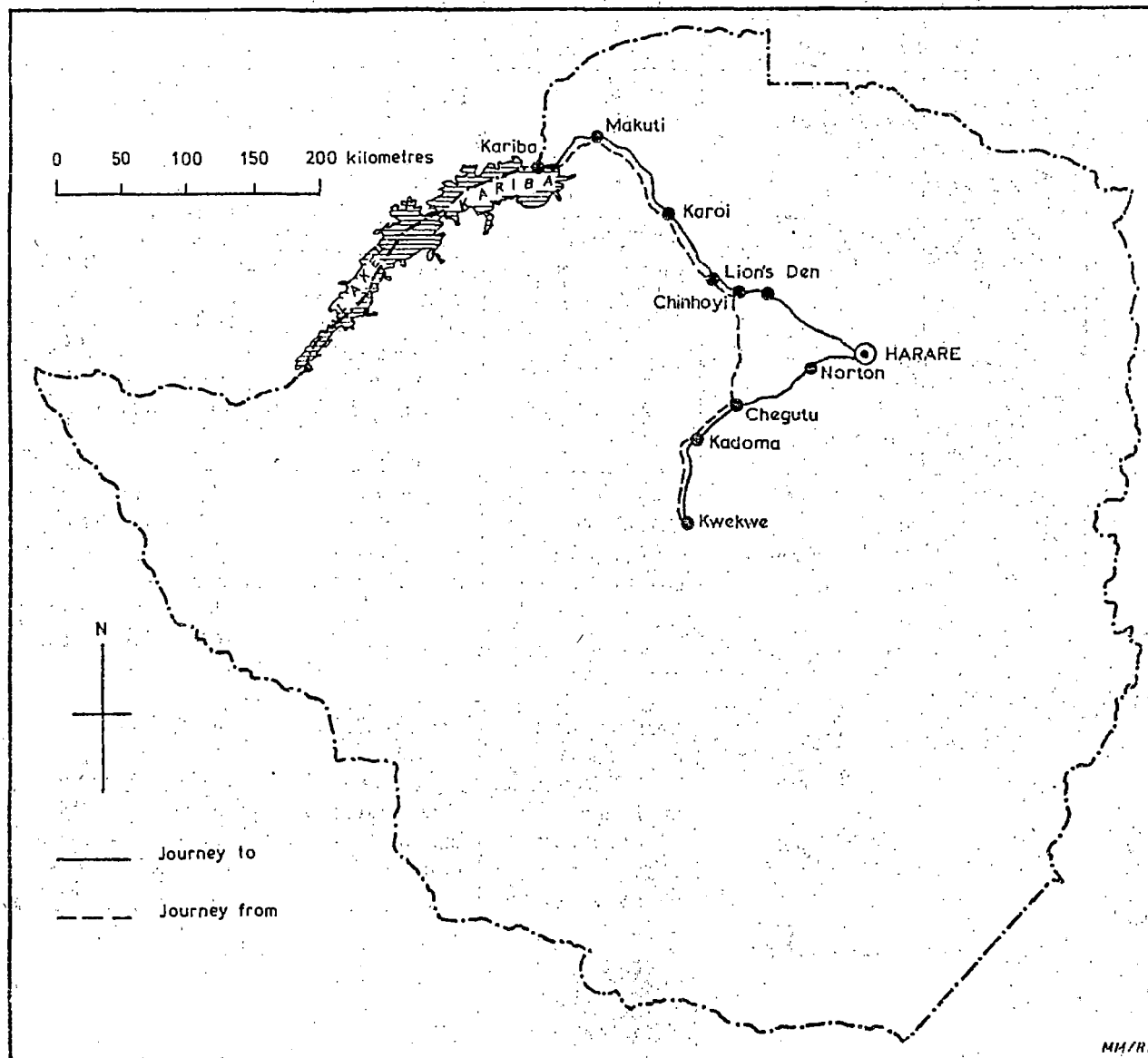
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Station	Stopping Places	Main Observations		
		Site/Location	Veg/Relief/Weather	Others
HARARE 8:40 am	i) National sports stadium. 60 000 seater built at a cost of US\$60 mill.	Open space S.W. of city, 8km from city centre.	Undulating ground.	A future Olympic village for Zimbabwe – along main A5 road from Byo. Only 20% of future developments completed.
	ii) Harare Airport.	Open space S.E. of city, 10 km from city centre.	Flat ground. Altitude approx. 1550 m.	International planes seen departing (against the wind) and landing (with the wind).
↓ 90 km	None	See transect.	Crossing of Great Dyke, i.e. Umvukwes Range.	See transect.
BANKET 2:50 pm	None	See transect.	See transect.	Grain silos and cotton storage piles.
↓ 20 km	None	See transect.	See transect.	Quarrying is predominant on hill sides.
CHINHWOYI 3:15 pm	i) Chinhoyi Govt. school to be accommodated for the night.	Valley site in the middleveld.	Sheltered by surrounding hills right around.	School on the foothills of highest kopje 'Speckley's kopje'.
DAY TWO 9:00 am	ii) Visited the copper smelting company, I.S.M., about 10 km S.W. of town. Has operated since 1959.	Hilly terrain.	Polluted vegetation around.	Observed the various operations. – blending of concentrates; – furnaces; – electrolysis refining which started in 1980.
10:00 am to 11.30 am	iii) Chinhoyi caves, 5 km west of town.	Limestone, marble and serpentine.	A lot of caverns and beautifully coloured rocks.	Stalactites and stalagmites observed. Nature conservation is at its maximum e.g. beautiful birds like the peacock.
↓ 20 km	None	See transect.	See transect.	See transect.
LIONS DEN 12:00 noon	None	See transect.	See transect.	Grain silos observed.

Station	Stopping Places	Main Observations		
		Site/Location	Veg/Relief/Weather	Others
100 km ↓	None	See transect and map.	Ups and downs but more upward slopes as one approaches Karoi.	Winter wheat (almost ripe) observed on some farms.
KAROI 1:00 pm	Restaurant for lunch and refueling the bus.	See transect and map.	Muzhanje quite predominant in this area. The large Karoi dam was observed.	Grain silos.
2:30 pm 95 km ↓	None	See transect and map.	Open grassland, more thorn trees coming into sight. Rugged terrain resulting in sharp curves.	Some rural areas observed.
MAKUTI 3:45 pm	Local store for refreshments.	Main road junction, i.e. Chirundu and Kariba roads.	Medium bush.	Dry savanna.
75 km ↓	None	Winding road with sharp curves	Sudden steep downward slopes, indicating an escarpment. A variety of dry savanna trees, e.g. Mugodo, Mutowa, Mpembere.	Baobabs begin to appear and other dry savanna trees. However msasa/mnondo and mfuti still show up here and there. Mosquito control.
KARIBA 5:15 pm	i) Guest House in the Mahombekombe high density suburb.	Very low altitude (see transect). No street patterns.	Very rugged terrain. A very cool breeze blows from the lake to moderate the heat.	Wild animals sighted on hill sides. Also elephants, monkeys and baboons seen in the residential areas.
DAY THREE 10:00 am	ii) At the Kariba Dam. Other minor stopping places were: – fish drying area; – Kariba Heights; – the harbour; and – the Kariba Breezes Hotel.	Very narrow gorge approximately 2km across but impounding water for more than 200 km in length and 30 km across.	Rocks mainly of stratified red-sedimentaries. Temperatures very high in the afternoon.	Most buildings show the use of local red-brown local sedimentaries. Beautiful high observation points to watch the lake, the harbour and the wall.

Station	Stopping Places	Main Observations		
		Site/Location	Veg/Relief/Weather	Others
4:30 pm to 6:30 pm	iii) The Cruise from the Cutty- Sark Hotel, on K.F. 970 TANTALIKA FERRY	Cutty-Sark Lake- side Hotel.	Open lake water as far as the eye could see. Was an ecstasy to every- one on board the ferry.	This was the climax of the trip, i.e. a 2 hr cruise in an open ferry for \$10 per head.
JOURNEY BACK ↑ 7.00 pm ARRIVAL 3:00 am DAY FOUR	Makuti only, for refreshments.			Journey started with ecstatic stories and experiences but all except a few fell asleep (very tired).

Figure 4: Map of the Route Taken



The following is a table of plants observed on the way. A table of Botanical names by Wild (1972), in Whitlow (1990) has helped to name some of the plants. Other sources have been mainly charts from the A.V.S. department and some Bundu Books (1972).

Table 2: Plants Observed

Botanical Name	English Gen. Name	Shona Name	Ndebele Name
<i>Acacia karroo</i>	Sweet Thorn	Muunga	Insinga
<i>Andansonina digitata</i>	Baobab	Muuyu	Umkhomo
<i>Brachystegia boehmii</i>	Mufuti	Mupfuti	Itshabela
<i>Brachystegia spiciformis</i>	Msasa	Musasa	Igonde
<i>Colophospermum mopane</i>	Mopane	Mupani/e	Iphane/i
<i>Combretum molle</i>	Soft leaved combretum	Mubondo/ Mpembere	Umbondo
<i>Diphorhynchus condylocarpon</i>	Rubber Tree	Mutowa	Inkamamasane
<i>Eucalyptus grandis</i>	Gum Tree	Mupuranga	—
<i>Gossypium</i>	Cotton	Donje	Utshinda
<i>Heteropogon contortus</i>	Spear Grass	Chitsine	Inzala
<i>Hyparrhenia filipendula</i>	Thatching grass	Zhengezhu	Intungwe
<i>Julbernardia globiflora</i>	Mnondo	Munhondo	Umshonkwe
<i>Themeda triandra</i>	Red Grass	—	—
<i>Triticum vulgare</i>	Wheat	Gorosi	Ingqolowa
<i>Uapaca kirkiana</i>	Mahobohobo	Mushuku/ Muzhanje	Umhobohobo
<i>Zea mays</i>	Maize	Chibage	Umumbu

CONCLUSION:

The author believes that this educational tour was very worthwhile in terms of pupils' learning. What was produced from the trip may be summarised as follows:

- 1) **The Landuse Transect** which must have helped those involved in attaining practical mapwork techniques and skills.
- N.B. the rock structure underneath was worked out from a geology map in the School Atlas for Zimbabwe (1985).
- 2) **The map of the route** (Figure 4) shows that the return-journey was a short-cut, avoiding Harare by connecting Chinhoyi and Chegutu, thus eliminating a distance of about 215 km.
- 3) **The table of events** i.e. the Recording of Information, has been greatly summarised to save space.
- 4) **The table of plants** is not exhaustive as many more were seen but only the most common or the most distinct could be identified easily as this exercise was done in transit whilst the bus was moving. Similarly the transect diagram shows very little variety of vegetation to avoid overcrowding.

It is hoped that all these activities, during and after a long or short school tour may help to make school tours very worthwhile for both the pupils and the teachers. Public relations between the **pupils and teachers; teachers and other teachers; teacher/pupils and the driver** are likely to be made comfortable, thus making the whole trip a happy one.

REFERENCES

- C.D.U. GEOGRAPHY TEAM (1984)
Mapping and Atlas work, Ministry of Education, Harare, Zimbabwe.
- MATEWERE, M. (1989)
 'How to undertake a field study: a visit to a manufacturing industry', *Geographical Education Magazine*, Vol. 12, No. 2, pp.23-32.
- MINISTRY OF EDUCATION, ZIMBABWE (1985)
School Atlas for Zimbabwe, Esselte Map Services Stockholm, Sweden.
- MTISI, B.R. (1989)
 'An educational tour of the Vumba and Burma valley areas', *Geographical Education Magazine*, Vol. 12, No. 1, pp.51-59.
- RUSHBY, J.G. (1970)
Study Geography, Stage 3, Longmans, London.
- SCNVYO (1972)
The Bundu Book of Trees, Flowers and Grasses, Longman, Salisbury, Rhodesia.
- WHITLOW, J.R. (1990)
 'Vegetation of Zimbabwe', *Geographical Education Magazine*, Vol.13, No. 1, pp.43-49.



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